

REMARKS

Favorable reconsideration of this application, as amended, is respectfully requested.

Claims 1–5, 8–11, 13, 14, 16–20, 23–25 and 27–36 were rejected under 35 U.S.C. § 102(b) as being anticipated by Kaule (US 6,146,773), and Claims 6, 7, 12, 15, 21, 22 and 26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaule in view of Hofmann (US 4,791,017). Without acceding to the rejections under § 102 and § 103, and in the interest of securing an expedited Notice of Allowance, Claim 1 has been amended to incorporate the features recited by Claim 15, which has been canceled without prejudice, and Claim 18 has been amended to depend from Claim 17. No new matter has been added. Thus, Claims 1–14 and 16–36 are pending.

The present invention is directed to securing documents of value, or protecting products, by incorporating a security element that includes an inexpensive, constant-tone, precious-metal-colored coating, such as, for example, a silver or gold colored coating. Because the inventive coating has an optically-striking appearance, the risk of forgery for articles incorporating a security element including the inventive coating is advantageously decreased. *See, e.g., Specification at Pages 1–2.*

Claim 1 is directed to method for producing a security element, or transfer element, for securing documents of value or for protecting products. Claim 1 recites, *inter alia*, vapor depositing a substrate with a multicomponent evaporating material, such that the evaporized evaporating material deposits as a precious-metal-colored coating on the substrate, determining at least one of a coating layer thickness by transmission measurement and a coating composition by reflection measurement, and correcting deviations in at least one of the coating layer thickness and the coating composition, from respective desired values, by adjusting at least one of a heating power and a substrate path speed. Applicants respectfully submit that none of the cited references, taken either singly or in combination, teaches or suggests all of the features recited by Claim 1.

Kaule discloses a bank note 1 with an embedded security thread 2 that includes a carrier 3 and a magentizable iron, nickel or magnetic alloy layer 4 having a particular coercivity. Kaule teaches that magnetic material is vapor-deposited onto carrier 3 in single layers, over several operations, in order to form a 0.1 micron-thick magnetic layer 4. Kaule also teaches

that a “further metallic layer 7” may be applied to magnetic layer 4 to produce “color effects,” such as golden colors. *See, e.g., FIGS. 1 and 2; Col. 2:59 to Col. 3:11; Col. 3:17–20; Col. 3:66 to Col. 4:15.* While Kaule teaches that magnetic layer 4 is vapor-deposited onto carrier 3, Kaule fails to explicitly disclose how the “further metallic layer 7” is applied to the magnetic layer 4. The Office Action agrees, but opines that “it can be expected that the [further metallic] layer is produced with the same method as the layer of iron” (Office Action at Page 2, Paragraph 3).

Notwithstanding whether Kaule suggests using vapor deposition to apply his “further metallic layer 7,” Kaule simply fails to teach or suggest “determining at least one of a coating layer thickness by transmission measurement and a coating composition by reflection measurement” and “correcting deviations in at least one of the coating layer thickness and the coating composition, from respective desired values, by adjusting at least one of a heating power and a substrate path speed,” as recited by Claim 1. The Office Action agrees, but rejects these features based upon a combination of the teachings of Hofmann and Kaule. *See, Office Action at Page 3, Paragraphs 5–7 (Claim 15).*

Applicants respectfully submit that Hofmann fails to teach or suggest these features. Hofmann discloses a hard, gold-colored underlayer 2 that is deposited onto an article substrate 1 using a cathode vaporization process, over which a surface layer 3 of gold, or gold alloy is deposited using another cathode vaporization process. Hofmann teaches that the surface layer 3 is formed from a gold alloy containing silver and copper, while the underlayer 2 is formed from carbonitrides of titanium, zirconium, etc., which may include gold, copper, etc., as coloring agents. *See, e.g., FIG. 7; Col. 5:4–13.* While the Office Action notes that “Hofmann teaches different types of copper containing alloys are provided on a coated substrate (Fig. 7 and Examples),”¹ Applicants fail to see how this general characterization of Hofmann’s cathode vaporization processes may be used to invalidate the claimed features discussed above.² Hofmann not only fails to teach or suggest determining coating layer thickness by transmission measurement, but he also fails to teach or suggest correcting deviations in coating layer thickness and coating composition, from respective desired values, by adjusting heating power and substrate path speed, as recited by Claim 1. Instead, Hofmann

¹ Office Action at Page 3, Paragraph 6.

² Moreover, Hofmann teaches away from using a physical vapor deposition (PVD) process to deposit his underlayer 2 and surface layer 3. *See, Col. 3:5–23.*

merely teaches that "it is particularly advantageous if the gold-colored underlayer [2] has a thickness of from about 0.2 to about 0.3 micron and the gold or gold-containing surface layer [3] has a thickness of from about 0.05 to about 1.0 micron" (Col. 3:38–41).

Accordingly, Applicants submit that the Office Action has failed to establish a *prima facie* case of obviousness with respect to Claim 1 because neither Kaule nor Hofmann teaches or suggests all of the claim limitations. *See, e.g.*, MPEP § 2142. Moreover, Applicants respectfully submit that none of the remaining references, taken either singly or in combination, cures their deficiencies.

Consequently, Claim 1 is allowable over Kaule and Hofmann. Furthermore, Claims 2–14 and 16–36, depending from Claim 1, are also allowable, at least for the reasons discussed above.

In view of the foregoing amendment and remarks presented herein, Applicants respectfully submit that this application is in condition for allowance and should now be passed to issue.

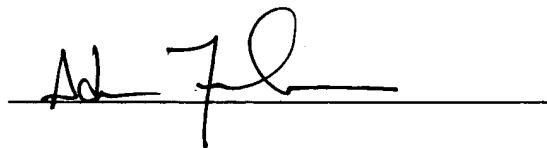
A Notice of Allowance is respectfully solicited.

If any extension of time is required in connection with the filing of this paper and has not been requested separately, such extension is hereby requested. The Commissioner is hereby authorized to charge any fees and to credit any overpayments that may be required by this paper under 37 C.F.R. §§ 1.16 and 1.17 to Deposit Account No. 02-2135.

Respectfully submitted,

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